

CLAIMS

I claim:

1. A folding router table, comprising:

a first leg pair;

a second leg pair oppositely spaced from and generally parallel to said first leg pair, each said leg pair having a guide channel leg with a laterally offset brace leg attachment extension extending therefrom, and a brace leg pivotally attached to said laterally offset brace leg attachment extension of each said guide channel leg;

each said guide channel leg and corresponding said pivotally attached brace leg defining a table top storage area therebetween when each said leg pair is folded with each said guide channel leg disposed substantially parallel to said corresponding pivotally attached brace leg;

each said guide channel leg and each said brace leg further including a table top support end;

each said guide channel leg further having an inboard side with a guide channel formed therein and extending from said table top support end, to and across said laterally offset brace leg attachment extension;

20 a fixed rail pivotally affixed to said table top support
21 end of each said brace leg;

22 a slide rail slidably secured to each said fixed rail,
23 each said slide rail further having a distal end slidably
24 secured within a corresponding said guide channel of each said
25 guide channel leg;

26 a first table top portion immovably affixed across each
27 said fixed rail;

28 a second table top portion pivotally attached to said first
29 table top portion and resting across each said slide rail when
30 said distal end of each said slide rail is secured to said table
31 top support end of a corresponding said guide channel leg in a
32 table deployed position;

33 said first and said second table top portion each having an
34 upper surface and a lower surface opposite said upper surface;

35 each said table top portion being stored within said table
36 top storage area between each said guide channel leg and
37 corresponding said pivotally attached brace leg when each said
38 leg pair is folded, with each said table top portion folded
39 together with said upper surface of each said table top portion
40 in facing contact with one another;

41 a power tool positional adjustment mechanism affixed to and
42 depending below said first table top portion, providing
43 positional adjustment in mutually orthogonal first and second
44 directions; and

45 a router affixed to said positional adjustment mechanism.

1 2. The folding router table according to claim 1, wherein
2 said second table top portion defines a guide fence when folded
3 normal to said first table top portion.

1 3. The folding router table according to claim 1, wherein
2 said power tool positional adjustment mechanism further
3 comprises:

4 a pair of spaced apart, parallel fixed guides immovably
5 affixed to and depending from said first table top portion;

6 each of said fixed guides further including a guide channel
7 formed therein and at least a first end;

8 a moving guide track disposed in each said guide channel;

9 a moving guide bracket affixed to and extending inwardly
10 from each said moving guide track;

11 a plurality of parallel slide pins extending from each said
12 moving guide bracket, normal to said each said guide channel and
13 guide track;

14 a guide block slidably disposed upon each said guide
15 bracket, by means of said slide pins;

16 a power tool attachment fixture affixed between each said
17 slidably disposed guide block;

18 an adjustment block affixed to said power tool attachment
19 fixture, normal to each said slidably disposed guide block;

20 a base plate affixed to said first end of each of said
21 fixed guides, and extending thereacross;

22 a first positional adjustment device affixed to said first
23 base plate;

24 a lateral slide plate slidably disposed between each said
25 channel of said fixed guides, and extending thereacross;

26 a first threaded rod extending between said first
27 positional adjustment device and said lateral slide plate;

28 a second positional adjustment device affixed to said
29 lateral slide plate; and

30 a second threaded rod extending between said second
31 positional adjustment device and said adjustment block, normal
32 to said first threaded rod; whereby

33 actuation of said first positional adjustment device
34 rotates said first threaded rod and moves said lateral slide
35 plate with said adjustment block and said power tool attachment
36 fixture attached thereto parallel to said fixed guides by means
37 of each said guide block and corresponding said moving guide
38 bracket, and actuation of said second positional adjustment
39 device rotates said second threaded rod and moves said
40 adjustment block with said power tool attachment fixture
41 attached thereto normal to said fixed guides by means of each
42 said guide block sliding upon said pins of a corresponding said
moving guide bracket.

1 4. The folding router table according to claim 3, wherein
2 said power tool attachment fixture comprises a tool surrounding
3 collar with a tangential pinch clamp and bolt.

1 5. The folding router table according to claim 3, wherein
2 said first and said second positional adjustment device each
3 comprise an electric motor.

1 6. The folding router table according to claim 5, further
2 including at least a first and a second switch controlling said
3 first and said second positional adjustment device.

1 7. A portable folding table, comprising:
2 a table top folding support leg assembly;
3 a table top storage area disposed within said support leg
4 assembly when said support leg assembly is folded;
5 a first table top portion; and
6 a second table top portion pivotally attached to said first
7 table top portion, said first and said second table top portion
8 each having an upper surface and a lower surface opposite said
9 upper surface; and
10 wherein each said table top portion is stored within said
11 table top storage area when said support leg assembly is folded,
12 with each said table top portion folded together with said upper
13 surface of each said table top portion in facing contact with
14 one another.

1 8. The portable folding table according to claim 7,
2 further including a power tool positional adjustment mechanism
3 affixed to and depending below said first table top portion,
4 providing positional adjustment in mutually orthogonal first and
5 second directions.

1 9. The portable folding table according to claim 8,
2 wherein said power tool positional adjustment mechanism
3 comprises:

4 a pair of spaced apart, parallel fixed guides immovably
5 affixed to and depending from said first table top portion;

6 each of said fixed guides further including a guide channel
7 formed therein and at least a first end;

8 a moving guide track disposed in each said guide channel;

9 a moving guide bracket affixed to and extending inwardly
10 from each said moving guide track;

11 a plurality of parallel slide pins extending from each said
12 moving guide bracket, normal to said each said guide channel and
13 guide track;

14 a guide block slidably disposed upon each said guide
15 bracket, by means of said slide pins;

16 a power tool attachment fixture affixed between each said
17 slidably disposed guide block;

18 an adjustment block affixed to said power tool attachment
19 fixture, normal to each said slidably disposed guide block;

20 a base plate affixed to said first end of each of said
21 fixed guides, and extending thereacross;

22 a first positional adjustment device affixed to said first
23 base plate;

24 a lateral slide plate slidably disposed between each said
25 channel of said fixed guides, and extending thereacross;

26 a first threaded rod extending between said first
27 positional adjustment device and said lateral slide plate;

28 a second positional adjustment device affixed to said
29 lateral slide plate; and

30 a second threaded rod extending between said second
31 positional adjustment device and said adjustment block, normal
32 to said first threaded rod; whereby

33 actuation of said first positional adjustment device
34 rotates said first threaded rod and moves said lateral slide
35 plate with said adjustment block and said power tool attachment
36 fixture attached thereto parallel to said fixed guides by means
37 of each said guide block and corresponding said moving guide
38 bracket, and actuation of said second positional adjustment
39 device rotates said second threaded rod and moves said
40 adjustment block with said power tool attachment fixture
41 attached thereto normal to said fixed guides by means of each
42 said guide block sliding upon said pins of a corresponding said
moving guide bracket.

1 10. The folding router table according to claim 9, wherein
2 said power tool attachment fixture comprises a tool surrounding
3 collar with a tangential pinch clamp and bolt.

1 11. The folding router table according to claim 9, wherein
2 said first and said second positional adjustment device each
3 comprise an electric motor.

1 12. The folding router table according to claim 11,
2 further including at least a first and a second switch
3 controlling said first and said second positional adjustment
4 device.

1 13. The portable folding table according to claim 7,
2 wherein said folding support leg assembly comprises:

3 a first leg pair;

4 a second leg pair oppositely spaced from and generally
5 parallel to said first leg pair;

6 each said leg pair comprising a guide channel leg with a
7 laterally offset brace leg attachment extension extending
8 therefrom, and a brace leg pivotally attached to said laterally
9 offset brace leg attachment extension of each said guide channel
10 leg;

11 each said guide channel leg and corresponding said
12 pivotally attached brace leg defining said table top storage
13 area therebetween when each said leg pair is folded with each
14 said guide channel leg disposed substantially parallel to said
15 corresponding pivotally attached brace leg;

16 each said guide channel leg and each said brace leg further
17 including a table top support end;

18 each said guide channel leg further including an inboard
19 side with a guide channel formed therein and extending from said
20 table top support end, to and across said laterally offset brace
21 leg attachment extension;

22 a fixed rail pivotally affixed to said table top support
23 end of each said brace leg;
24 a slide rail slidingly secured to each said fixed rail;
25 each said slide rail further having a distal end slidingly
26 secured within a corresponding said guide channel of each said
27 guide channel leg;
28 said first table top portion being immovably affixed across
29 each said fixed rail; and
30 said second table top portion being hingedly attached to
31 said first table top portion and resting across each said slide
32 rail when said distal end of each said slide rail is secured to
33 said table top support end of a corresponding said guide channel
34 leg in a table deployed position.

1 14. A folding router table, comprising:
2 a first table top portion;
3 a second table top portion, pivotally attached to said
4 first table top portion, said first and said second table top
5 portions each having an upper surface and a lower surface
6 opposite said upper surface;
7 a power tool positional adjustment mechanism affixed to and
8 depending below said first table top portion, providing
9 positional adjustment in mutually orthogonal first and second
10 directions; and
11 a router affixed to said positional adjustment mechanism.

1 15. The folding router table according to claim 14,
2 further including:

3 a first leg pair;

4 a second leg pair oppositely spaced from and generally
5 parallel to said first leg pair;

6 each said leg pair comprising a guide channel leg with a
7 laterally offset brace leg attachment extension extending
8 therefrom, and a brace leg pivotally attached to said laterally
9 offset brace leg attachment extension of each said guide channel
10 leg;

11 each said guide channel leg and corresponding said
12 pivotally attached brace leg defining said table top storage
13 area therebetween when each said leg pair is folded with each
14 said guide channel leg disposed substantially parallel to said
15 corresponding pivotally attached brace leg;

16 each said guide channel leg and each said brace leg further
17 including a table top support end;

18 each said guide channel leg further including an inboard
19 side with a guide channel formed therein and extending from said
20 table top support end, to and across said laterally offset brace
21 leg attachment extension;

22 a fixed rail pivotally affixed to said table top support
23 end of each said brace leg;

24 a slide rail slidingly secured to each said fixed rail;

25 each said slide rail further having a distal end slidingly
26 secured within a corresponding said guide channel of each said
27 guide channel leg;

28 said first table top portion being immovably affixed across
29 each said fixed rail;

30 said second table top portion being pivotally attached to
31 said first table top portion and resting across each said slide
32 rail when said distal end of each said second rail is secured to
33 said table top support end of a corresponding said guide channel
34 leg in a table deployed position; and

35 each said table top portion being stored within said table
36 top storage area between each said guide channel leg and
37 corresponding said pivotally attached brace leg when each said
38 leg pair is folded, with each said table top portion folded
39 together with said upper surface of each said table top portion
40 in facing contact with one another.

1 16. The folding router table according to claim 15,
2 wherein said second table top portion defines a guide fence when
3 said second table top portion is folded normal to said first
4 table top portion.

1 17. The portable folding table according to claim 14,
2 wherein said power tool positional adjustment mechanism
3 comprises:

4 a pair of spaced apart, parallel fixed guides immovably
5 affixed to and depending from said first table top portion;

6 each of said fixed guides further including a guide channel
7 formed therein and at least a first end;

8 a moving guide track disposed in each said guide channel;

9 a moving guide bracket affixed to and extending inwardly
10 from each said moving guide track;

11 a plurality of parallel slide pins extending from each said
12 moving guide bracket, normal to said each said guide channel and
13 guide track;

14 a guide block slidably disposed upon each said guide
15 bracket, by means of said slide pins;

16 a power tool attachment fixture affixed between each said
17 slidably disposed guide block;

18 an adjustment block affixed to said power tool attachment
19 fixture, normal to each said slidably disposed guide block;

20 a base plate affixed to said first end of each of said
21 fixed guides, and extending thereacross;

22 a first positional adjustment device affixed to said first
23 base plate;

24 a lateral slide plate slidably disposed between each said
25 channel of said fixed guides, and extending thereacross;

26 a first threaded rod extending between said first
27 positional adjustment device and said lateral slide plate;

28 a second positional adjustment device affixed to said
29 lateral slide plate; and

30 a second threaded rod extending between said second
31 positional adjustment device and said adjustment block, normal
32 to said first threaded rod; whereby

33 actuation of said first positional adjustment device
34 rotates said first threaded rod and moves said lateral slide
35 plate with said adjustment block and said power tool attachment
36 fixture attached thereto parallel to said fixed guides by means
37 of each said guide block and corresponding said moving guide
38 bracket, and actuation of said second positional adjustment
39 device rotates said second threaded rod and moves said
40 adjustment block with said power tool attachment fixture
41 attached thereto normal to said fixed guides by means of each
42 said guide block sliding upon said pins of a corresponding said
43 moving guide bracket.

1 18. The folding router table according to claim 17,
2 wherein said power tool attachment fixture comprises a tool
3 surrounding collar with a tangential pinch clamp and bolt.

1 19. The folding router table according to claim 17,
2 wherein said first and said second positional adjustment device
3 each comprise an electric motor.

1 20. The folding router table according to claim 18,
2 further including at least a first and a second switch
3 controlling said first and said second positional adjustment
4 device.